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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/809,228	03/15/2001	Igor R. Vinogradov	873	5701

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EXAMINER
NGUYEN, KIMBERLY D

ART UNIT	PAPER NUMBER
2876	

DATE MAILED: 12/19/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	09/809,228	VINOGRADOV ET AL.
	Examiner	Art Unit
	Kimberly D. Nguyen	2876

-- Th MAILING DATE of this communication appears on th cover she t with th correspondenc address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-61* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-61* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Claim Objections

1. Claim 1 is objected to because of the following informalities:

- Claim 1, line 1: "a optical system" should be replaced with "an optical system".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-12, 13-17, 18-20, 22-23, 42-53 and 54-61 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- Claim 1, line 3: "the focus" lacks of antecedent basis.

- Re claim 13, line 2: The phrase "capable of" is vague and indefinite. It has been held that the recitation that an element is "capable of" or "adapted to" performing a function is not a positive limitation but only requires the ability to so perform. It does not constitute a limitation in any patentable sense. In re Hutchison, 69 USPQ 138.

- Re claim 18, line 2: The phrase "capable to" is vague and indefinite.

- Re claim 22, line 2: The phrase "capable to" is vague and indefinite.

- Re claim 42, line 1: The phrase "capable to" is vague and indefinite.

- Re claim 54, line 1: The phrase "capable to" is vague and indefinite.

Appropriate clarification and correction is required.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-6, 9-11, 13-15, 24-30, 42-48, 51-53 are rejected under 35 U.S.C. 102(b) as being anticipated by Plesko (US 5,864,128; hereinafter "Plesko '128").

Re claims 1-4, 13, 24-27: Plesko '128 teaches an optical system having all of the elements and means as cited in claim 1. For example, an optical device for use in an optical system (fig. 2) for reading an optical-code/barcode-target, comprising a unitary body 300 (fig. 12) of optical material having an aperture forming area 9 and a beam phase modifying area both receptive of light from a light source S for the focus free forming of a beam for reading the optical code (figs. 2, 4, 7, 12 and 19; col. 4, lines 35-51; col. 10, lines 34-57; col. 12; lines 23-51).

Re claims 5, 28, 47: Plesko '128 teaches an optical system, wherein the inner region of the inner surface comprises a converging region 2 for focusing a portion of the light to form the beam and the outer region of the inner surface comprises a diverging region for diverging a portion of the laser light away from the beam (figs. 3; col. 4, line 54 through col. 5, line 2; col. 5, lines 37-48).

Re claims 6, 29, 48: Plesko '128 teaches an optical system, wherein the converging region is located concentrically within the diverging region (figs. 9-10; col. 6, lines 8-41).

Re claim 9: Plesko '128 teaches an optical system, wherein the unitary body further comprises a laser support region for supporting a laser source S (figs. 12-13; col. 47-57).

Re claims 10-11, 14-15, 51-53: Plesko '128 teaches an optical system, wherein the unitary body has at least one notch/hole 303 configured to support an edge of a circuit board (figs. 12-13; col. 10, lines 47-63).

Re claim 30: Plesko '128 teaches an optical system further comprising receiving return light on the beam splitter and redirecting a portion of the return laser light to a photodetector (col. 18, lines 25-27).

Re claims 42-46: Plesko '128 teaches an optical reader capable of reading an optical code by projecting laser light at the indicia and collecting light reflected from the optical code, the optical code reader comprising: a pen-shape housing (fig. 27a; col. 15, lines 34-57); a laser source for emitting the laser light S (fig. 3); a unitary body for focusing the light into a beam, the unitary body having an output surface perpendicular to the beam through which the beam can be transmitted toward the optical code (fig. 7); and a detector for receiving a portion of light reflected from the optical code and producing an electrical signal corresponding to the intensity of the reflected light, wherein the laser source S, the unitary body, the collector, and the detector are situated in the housing (figs. 3, 7 and 27a; col. 1, lines 15-20; col. 4, line 54 through col. 5, line 2; col. 15, lines 34-57; col. 18, lines 25-26).

3. Claim 21 is rejected under 35 U.S.C. 102(b) as being anticipated by Coleman.

Coleman teaches a collection mirror 24 for use in a bar code reader comprising at least one Brewster's angle beam splitter (figs. 1-4; col. 2, lines 24-55; col. 4, lines 1-27).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claims 7-8, 12, 16-20, 22-23, 32-41, 49-50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plesko '128 in view of Coleman et al. (US 5,602,376; hereinafter "Coleman"). The teachings of Plesko '128 have been discussed above.

Re claims 7-8, 12, 16-17, 22-23, 32-33, 36, 38, 49-50: Plesko '128 is silent with respect to the outer region of the inner surface is at an oblique angle relative to the beam to form a beam splitting surface for reflecting a portion of return light.

Coleman teaches an optical scanner system, wherein the outer surface/window 24 is a Brewster's tilted angled beam splitter (figs. 1-4; col. 2, lines 24-55; col. 4, lines 1-27).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the notoriously old and well known scanner with a Brewster's angled window as taught by Coleman to the teachings of Plesko '128 in order to provide Plesko '128 with a tilted window to prevent the undesired reflection of light from passing to the scanned target.

Re claims 18-19: Plesko '128 teaches an optical system comprising a laser support region 303 (fig. 12) for supporting the laser source S; an output surface substantially perpendicular to the beam for transmitting the laser light (figs. 12; col. 4, lines 35-51; col. 10, lines 34-57; col. 12; lines 23-51)

Plesko '128 is silent with respect to the collection surface having an oblique angle relative to the beam for collecting light reflected from the indicia.

Coleman teaches an optical scanner system having a collection surface/window 24 having an oblique angle relative to the beam for collecting light reflected from the indicia (figs. 1-4; col. 2, lines 24-55; col. 4, lines 1-27).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the notoriously old and well known scanner with a collection surface having an oblique angle as taught by Coleman to the teachings of Plesko '128 in order to provide Plesko '128 with a tilted window to prevent the undesired reflection of light from passing to the scanned target.

Re claims 20, 34-35, 39-41: Plesko '128 teaches an optical system, wherein the unitary body has at least one notch/hole 303 configured to support an edge of a circuit board (figs. 12-13; col. 10, lines 47-57).

Re claim 37: Plesko '128 teaches an optical system, wherein the projecting comprises manually controlling the position of the beam (fig. 22; col. 14, lines 46-54).

6. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plesko '128 in view of Hohne et al. (US 4,105,332; hereinafter "Hohne"). The teachings of Plesko have been discussed above.

Plesko '128 is silent with respect to the step of redirecting divergent light energy from the periphery of the beam using an internal reflection surface.

Hohne teaches an optical reader system further comprising the step of redirecting divergent light energy from the periphery of the beam using an internal reflection surface (fig. 1; col. 2, lines 47-57).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the notoriously old and well known redirecting divergent light energy from the periphery of the beam using an internal reflection surface as taught by Hohn to the teachings of Plesko '128 in order to prevent the divergent light from interfering with the detected light containing target information to the photodetector.

7. Claims 54-60 are rejected under 35 U.S.C. 103(a) as being unpatentable over Plesko '128 in view of Plesko (US 5,933,288; hereinafter "Plesko '288").

Re claims 54-58: Plesko '128 teaches a wand reader (fig. 3) for reading an optical code by projecting a focused beam of light at the optical code and collecting return light reflected from the optical code, the reader comprising: a light source S for emitting energy; a unitary body for focusing the light energy into the focused light beam, the unitary body 600 (fig. 19) having an output surface perpendicular to the focused light beam through which the focused light can be transmitted toward the optical code; and a detector for receiving a portion of the return light reflected from the optical code and producing an electrical signal corresponding to the intensity of the return light (figs. 3-4, 7 and 19; col. 1, lines 14-21; col. 4, line 54 through col. 5, line 2).

Although, Plesko '128 teaches a microphone 60 and other necessities (i.e., light source, the unitary body, etc.) are situated in the scanner housing (fig. 25A; col. 15, lines 16-33); Plesko '128 fails to teach or fairly suggest that the light source, the unitary body, and the detector are situated in an antenna.

Plesko '288 teaches an optical scanner, which is situated in an antenna 43 (figs. 2 and 7; col. 1, lines 28-26; col. 6, line 49 through col. 7, line 15).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the optical scanner which is situated in an antenna as taught by Plesko '288 to the teachings of Plesko '128 in order to provide a wireless telecommunication to the scanner.

Re claim 59: Plesko '128 teaches an optical system, wherein the inner region of the inner surface comprises a converging region 2 for focusing a portion of the light to form the beam and the outer region of the inner surface comprises a diverging region for diverging a portion of the laser light away from the beam (figs. 3; col. 4, line 54 through col. 5, line 2; col. 5, lines 37-48).

Re claim 60: Plesko '128 teaches an optical system, wherein the converging region is located concentrically within the diverging region (figs. 9-10; col. 6, lines 8-41).

8. Claim 61 is rejected under 35 U.S.C. 103(a) as being unpatentable over Plesko '128 as modified by Plesko '288 as applied to claim 58, and further in view of Coleman. The teachings of Plesko '128 as modified by Plesko '288 have been discussed above.

Plesko '128/ Plesko '288 is silent with respect to the outer surface is arranged at an oblique angle relative to the beam.

Coleman teaches an optical scanner system, wherein the outer surface/window 24 is a Brewster's tilted angled beam splitter (figs. 1-4; col. 2, lines 24-55; col. 4, lines 1-27).

It would have been obvious to an artisan of ordinary skill in the art at the time the invention was made to incorporate the notoriously old and well known scanner with a Brewster's angled window as taught by Coleman to the teachings of Plesko '128/ Plesko '288 in order to

provide Plesko '128/ Plesko '288 with a tilted window to prevent the undesired reflection of light from passing to the scanned target.

Conclusion

9. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Nakajima et al. (US 6,198,862) teaches an optical position detector. Plesko (US 5,886,332) teaches a beam shaping system with surface treated lens and methods for making same. Plesko (US 6,233,098) teaches a beam shaping system with surface treated lens and methods for making same. Plesko (US 5,550,367) teaches a system for extending the operating range of a beam scanner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kimberly D. Nguyen whose telephone number is 703-305-1798. The examiner can normally be reached on Monday-Friday 7:30-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael G. Lee can be reached on 703-305-3503. The fax phone numbers for the organization where this application or proceeding is assigned are 703-305-1341 for regular communications and 703-305-1341 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-8792.

KDN
December 16, 2002

MICHAEL G. LEE
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